

IN THE CLAIMS:

Claim 1 (Canceled)

Claim 2 (Canceled)

Claim 3 (Canceled)

Claim 4 (Currently Amended) An assembly as set forth in Claim 3
34 wherein said spacer member includes:

- (a) opposite lateral surfaces; and
- (b) each of said lateral surfaces are substantially concave.

Claim 5 (Currently Amended) An assembly as set forth in Claim 3 34 wherein:

- (a) said thread has a root that ~~followings~~ follows a path located on a funnel shaped and discontinuous surface ~~and having a root with a, the surface having a greatest~~ radius near an anterior end of said spacer member and ~~with~~ a smallest radius near a posterior end of said spacer member.

Claim 6 (Canceled)

Claim 7 (Canceled)

Claim 8 (Canceled)

Claim 9 (Canceled)

Claim 10 (Currently Amended) A spinal fusion interbody spacer assembly for maintaining a selected intervertebral spacing between an adjacent pair of vertebrae having mutually facing vertebral surfaces, each vertebral surface including an inner central region and an outer edge region, said assembly comprising:

- (a) an interbody spacer member sized and shaped so as to be adapted to enable implanting of said member between and in touching relationship at both a top and bottom of the spacer respectively with an adjacent pair of vertebrae to engage and support certain the central regions of mutually facing vertebral surfaces of the vertebrae; said spacer member having a longitudinal axis; said spacer member having front and rear ends on opposite ends of said longitudinal axis;
- (b) an end cap joinable with said spacer member at said

front end and configured in such a manner as to be adapted to enable implanting between facing ~~edge regions of the~~ vertebrae so as to resist subsidence of the vertebrae about the assembly, said end cap including a pair of wing portions extending laterally on opposite sides of said end cap; said wing portions having an arcuate curvature and being sized and shaped so as to ~~generally correspond with an entire~~ have upper and lower wing surfaces that engage and support an anterior edge from a center to lateral sides of respective ~~said~~ facing vertebral surfaces; and

(c) said end cap being removably securable to said spacer member and cooperating therewith to maintain the selected intervertebral spacing between the vertebrae.

Claim 11 (Original) An assembly as set forth in Claim 10 wherein:

(a) said spacer member and said end cap cooperate to position said spacer member in substantial alignment with a median plane of the vertebrae.

Claim 12 (Canceled)

Claim 13 (Canceled)

Claim 14 (Canceled)

Claim 15 (Currently Amended) An assembly as set forth in Claim ~~14~~
37 wherein said spacer member includes:

- (a) a superior vertebra engaging surface and an opposite inferior vertebra engaging surface; and
- (b) at least a portion of each of said superior surface and said inferior surface having threads thereon with crests that are located so as to be positioned on a cylindrical shaped and discontinuous surface.

Claim 16 (Original) An assembly as set forth in Claim 15 wherein said spacer member includes:

- (a) opposite lateral surfaces; and
- (b) each of said lateral surfaces being substantially concave.

Claim 17 (Original) An assembly as set forth in Claim 15 wherein:

- (a) said threads have roots that are located so as to be positioned on a funnel shaped and discontinuous surface having a greatest radius near an anterior end of said spacer member.

Claim 18 (Original) An assembly as set forth in Claim 10 and

including:

- (a) said end cap and said wing portions having a generally continuous superior cap surface and an opposite inferior cap surface; and
- (b) said end cap being secured to said spacer member in such a manner that when in use said cap surfaces is adapted to engage the edge regions of the vertebral surfaces.

Claim 19 (Canceled)

Claim 20 (Canceled)

Claim 21 (Canceled)

Claim 22 (Canceled)

Claim 23 (Canceled)

Claim 24 (Canceled)

Claim 25 (Canceled)

Claim 26 (Canceled)

Claim 27 (Canceled)

Claim 28 (Currently Amended) A method of stabilizing between a pair of vertebrae including the steps of:

- (a) placing a single midline spacer having a cylindrical profile between said vertebrae so as to be located in a median plane relative to said vertebrae and such that a top and a bottom of the spacer are in touching relationship with mutually facing surfaces of respective vertebrae; said spacer having a longitudinal axis with front and rear ends located along said longitudinal axis; and
- (b) placing an end cap on said front end of said spacer wherein said end cap includes wings that extend laterally outward and are sized and shaped to conform to the anterior curvature of the vertebrae ~~from a center thereof~~ along the entire anterior edges to the lateral sides thereof, the wings being and also are sized and shaped to be positioned between the vertebrae and so that superior and inferior surfaces of the spacer engage respective facing surfaces of the vertebrae forward of said spacer such that said end cap engages said vertebrae and resists lateral rotation of said vertebrae about said spacer and subsidence of the

vertebrae relative to said spacer.

Claim 29 (Canceled)

Claim 30 (Currently Amended) A centerline spinal fusion interbody spacer assembly for implanting to maintain a selected intervertebral spacing between an adjacent pair of vertebrae having mutually facing vertebral surfaces and each vertebra having an inner central regions region and an outer edge region with lateral sides, said assembly comprising:

- (a) an interbody spacer member configured, sized, and shaped to enable implanting between an adjacent pair of vertebrae so as to touchingly engage mutually facing vertebral surfaces of the vertebrae with respective top and bottom surfaces of said spacer member to thereby maintain a selected intervertebral spacing therebetween;
- (b) said spacer member being further configured to enable said spacer member to be positioned in substantial alignment with a median plane of the vertebrae as a single such spacer; said spacer member having front and rear ends; and
- (c) an end cap member securable to said spacer member front end so as to extend in front of said spacer member and

having a superior cap surface and an opposite inferior cap surface; said superior and inferior cap surfaces being sized and shaped to be positioned between said vertebrae and engage respective facing vertebral surfaces of said vertebrae while following the anterior curvature of a respective vertebra; said end cap member including a pair of wing portions each sized and shaped so as to substantially conform to the shape of the anterior edges of the vertebrae from a center to the lateral sides of the vertebrae so as to be adapted to support respective facing vertebral surfaces on opposite lateral sides of said vertebrae during use.

Claim 31 (Canceled)

Claim 32 (Currently Amended) In a spinal fusion assembly having a centerline interbody spacer; said spacer being that is sized and shaped to be midline positioned between facing surfaces of adjacent vertebrae such that top and bottom surfaces of said spacer are in touching relationship with facing surfaces of respective vertebrae and including an end cap, said spacer member having front and rear ends with the end cap being joined to the front end of the spacer, the improvement comprising:

(a) said end cap includes including a pair of laterally

extending wings having anterior and superior surfaces, with wing being sized and shaped so as to conform to the anterior curvature of the edge of a respective vertebra such that the superior and inferior surfaces of the wings engage respective vertebra from whereat the cap joins to the spacer a center to a lateral side of the vertebrae and adapted to be positioned during use between said facing surfaces of said adjacent vertebrae and extend to the lateral sides of said vertebrae so as to resist subsidence of the vertebrae with respect to said assembly.

Claim 33 (New) A centerline spinal fusion interbody spacer assembly for implanting to maintain a selected intervertebral spacing between an adjacent pair of vertebrae having mutually facing vertebral surfaces, each vertebra having an inner central region and an outer edge region with lateral sides, said assembly comprising:

- (a) an interbody spacer member configured sized and shaped to enable implanting between an adjacent pair of vertebrae to engage mutually facing vertebral surfaces of the vertebrae to thereby maintain a selected intervertebral spacing therebetween;
- (b) said spacer member being further configured to enable

said spacer member to be positioned in substantial alignment with a median plane of the vertebrae as a single such spacer;

- (c) said spacer member being a screw in type spacer and including an external thread positioned on said spacer member so that the spacer threadedly engages the vertebral surfaces when implanted between the vertebrae; and
- (d) an end cap member securable to said spacer member having a superior cap surface and an opposite inferior cap surface; said superior and inferior cap surfaces being sized and shaped to be positioned between said vertebrae and engage respective facing vertebral surfaces of said vertebrae while following the anterior curvature of a respective vertebra; said end cap member including a pair of wing portions each sized and shaped so as to substantially conform to the shape of the anterior edges of the vertebrae from the median plane to the lateral sides of the vertebrae so as to be adapted to support respective facing vertebral surfaces on opposite lateral sides of said vertebrae during use.

Claim 34 (New) A centerline spinal fusion interbody spacer

assembly for implanting to maintain a selected intervertebral spacing between an adjacent pair of vertebrae having mutually facing vertebral surfaces, each vertebra having an inner central region and an outer edge region with lateral sides, said assembly comprising:

- (a) an interbody spacer member configured sized and shaped to enable implanting between an adjacent pair of vertebrae to engage mutually facing vertebral surfaces of the vertebrae to thereby maintain a selected intervertebral spacing therebetween;
- (b) said spacer member being further configured to enable said spacer member to be positioned in substantial alignment with a median plane of the vertebrae as a single such spacer;
- (c) said spacer member including a superior vertebra engaging surface and an opposite inferior vertebra engaging surface;
- (d) at least a portion of each said superior vertebra engaging surface and said inferior vertebra engaging surface have a thread thereon having crests that are aligned to form a partial cylindrical surface; and
- (e) an end cap member securable to said spacer member having a superior cap surface and an opposite inferior cap surface; said superior and inferior cap surfaces

being sized and shaped to be positioned between said vertebrae and engage respective facing vertebral surfaces of said vertebrae while following the anterior curvature of a respective vertebra; said end cap member including a pair of wing portions each sized and shaped so as to substantially conform to the shape of the anterior edges of the vertebrae from the median plane to the lateral sides of the vertebrae so as to be adapted to support respective facing vertebral surfaces on opposite lateral sides of said vertebrae during use.

Claim 35 (New) A spinal fusion interbody spacer assembly for maintaining a selected intervertebral spacing between an adjacent pair of vertebrae having mutually facing vertebral surfaces, each vertebral surface including an inner central region and an outer edge region, said assembly comprising:

- (a) an interbody spacer member sized and shaped so as to be adapted to enable implanting of said member between an adjacent pair of vertebrae to engage and support central regions of mutually facing vertebral surfaces of the vertebrae;
- (b) an end cap joinable with said spacer member and configured in such a manner as to be adapted to enable

implanting between facing edge regions of the vertebrae so as to resist subsidence of the vertebrae about the assembly, said end cap including a pair of wing portions extending laterally on opposite sides of said end cap; said wing portions having an arcuate curvature and being sized and shaped so as to generally correspond with an entire anterior edge of said facing vertebral surfaces;

- (c) said end cap being removably securable to said spacer member and cooperating therewith to maintain the selected intervertebral spacing between the vertebrae;
- (d) at least one resilient pawl positioned on said end cap;
- (e) a pawl receiving recess formed on said spacer member; and
- (f) said end cap being secured to said spacer member by resilient engagement of said pawl with said recess.

Claim 36 (New) A spinal fusion interbody spacer assembly for maintaining a selected intervertebral spacing between an adjacent pair of vertebrae having mutually facing vertebral surfaces, each vertebral surface including an inner central region and an outer edge region, said assembly comprising:

- (a) an interbody spacer member sized and shaped so as to be adapted to enable implanting of said member between an

adjacent pair of vertebrae to engage and support central regions of mutually facing vertebral surfaces of the vertebrae;

- (b) an end cap joinable with said spacer member and configured in such a manner as to be adapted to enable implanting between facing edge regions of the vertebrae so as to resist subsidence of the vertebrae about the assembly, said end cap including a pair of wing portions extending laterally on opposite sides of said end cap; said wing portions having an arcuate curvature and being sized and shaped so as to generally correspond with an entire anterior edge from a center to lateral sides of said facing vertebral surfaces;
- (c) said end cap being removably securable to said spacer member and cooperating therewith to maintain the selected intervertebral spacing between the vertebrae;
- (d) a pair of resilient pawls positioned in opposed relation on said end cap;
- (e) a recess structure forming a respective pawl receiving recess on each of opposite sides of said spacer member; and
- (f) said end cap being secured to said spacer member by resilient engagement of each of said pawls with a respective pawl receiving recess of said spacer member.

Claim 37 (New) A spinal fusion interbody spacer assembly for maintaining a selected intervertebral spacing between an adjacent pair of vertebrae having mutually facing vertebral surfaces, each vertebral surface including an inner central region and an outer edge region, said assembly comprising:

- (a) an interbody spacer member sized and shaped so as to be adapted to enable implanting of said member between an adjacent pair of vertebrae to engage and support central regions of mutually facing vertebral surfaces of the vertebrae;
- (b) said spacer member including external threads positioned on said spacer member in such a manner as to threadedly engage the vertebral surfaces when implanted between the vertebrae;
- (c) an end cap joinable with said spacer member and configured in such a manner as to be adapted to enable implanting between facing edge regions of the vertebrae so as to resist subsidence of the vertebrae about the assembly, said end cap including a pair of wing portions extending laterally on opposite sides of said end cap; said wing portions having an arcuate curvature and being sized and shaped so as to generally correspond with an entire anterior edge from a center

to lateral sides of said facing vertebral surfaces; and

(d) said end cap being removably securable to said spacer member and cooperating therewith to maintain the selected intervertebral spacing between the vertebrae.